

Customer No.: 31561
Docket No.: 11579-US-PA
Application No.: 10/710,419

REMARKS

Present Status of the Application

Claims 1-13 and 23 are rejected. Specifically, claims 1-6, 8-11 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Kelkar et al. (U. S. Patent 6,462,426; hereinafter Kelkar). Claims 1, 2 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Tseng et al. (U.S. Publication No. 2003/0124832; hereinafter Tseng). Claims 7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelkar in view of Greer (U. S. Patent 6,451,681; hereinafter Greer). Claim 1 is objected for informalities. Applicant has amended claim 1 to provide more descriptions according to the present invention. Claim 23 has been cancelled. After carefully considering the remarks set forth in this Office Action and the cited references, Applicants respectfully submitted that the presently pending claims are in condition for allowance and such reasons will be discussed hereinafter. A notice of allowance is most earnestly solicited.

Discussion of claim objection

Claim 1 was objected for informalities. The Office Action noted that claim 1 recited "wherein the bonding pads are exposed by the first passivation layer".

Applicant respectfully points out that claim 1 was amended to recite "wherein the bonding pads are not fully covered~~exposed~~ by the first passivation layer".

In this case, the term "exposed" was deleted and the phrase "not fully covered" was added to the amended claim 1, according to the previous amendment.

Applicant believes that there is no informalities present in the amended claim 1, and there must have some errors caused by the computer or software.

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As the issue is cleared herein, withdrawal of this objection is respectfully requested.

Discussion of Claim Rejections under 35 USC 102

Claims 1-6, 8-11 and 13 were rejected under 35 U.S.C. 102(b) as being anticipated by Kelkar. Claims 1, 2 and 23 were rejected under 35 U.S.C. 102(b) as being anticipated by Tseng.

Applicant respectfully traverses the rejections for at least the reasons set forth below.

Claim 1 has been amended by merging the limitations of claim 23 into claim 1, while claim 23 has been cancelled.

In re Kelkar (see Fig. 2), the Office action considered Kelkar's base pad 202, layer 212 as the first and second metallic layers of the UBM layer of this invention, and Kelkar's layer 210 as the second passivation layer of this invention. Applicant respectfully disagrees.

Applicant respectfully points out that Keller's UBM layer 212 is formed over the protective layer 210 and covers a portion of the material layer 210 (col. 4, lines 52-56). Even if considering the material layer 210 of Kelkar as comparable to the second passivation layer of this invention, Kelkar's layer 212 clearly covers at least a portion of the second passivation layer 210, which is apparently different to the structure as recited in amended claim 1.

Therefore, the structure as recited in claim 1 of the present invention is apparently distinguishable over Kelkar. For at least the foregoing reasons, dependent claims 2-6, 8-10 and 13 are distinguishable over Kelkar, as well as for the additional features recited therein.

In re Tseng (see Fig. 2), the Office action considered Tseng's layer 20, layer 26 as the first and second metallic layers of the UBM layer of this invention, and Tseng's layer 22 as the second passivation layer of this invention. Applicant respectfully disagrees.

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As taught by Tseng, the layer 22 is a photoresist layer (paragraph [0073]) to provide openings and is then removed after forming the seed layers 26/28 and the conductive material 30 (Fig. 3H; paragraph [0077]). To any one of ordinary skill in this field, a photoresist layer is definitely not equivalent to or comparable to a passivation layer. It is not only because the definitions of the terms are different, but also because the function and consequences provided by these two layers are unsimilar in many ways. Moreover, Tseng's photoresist layer 22 is clearly not equivalent or even comparable to the second passivation layer of this invention, as the material of the second passivation layer is benzocyclobutene (BCB) or polyimide (PI) according to the dependent claim 11.

Therefore, the structure as recited in claim 1 of the present invention is apparently distinguishable over Tseng. For at least the foregoing reasons, dependent claim 2 is distinguishable over Tseng, as well as for the additional features recited therein.

Reconsideration and withdrawal of these 102 rejections are respectfully requested.

Discussion of Claim Rejections under 35 USC 103

Claims 7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelkar in view of Greer. Applicant respectfully traverses the rejections for at least the reasons set forth below.

With at least the reasons discussed above and applied to claim 1, the dependent claims 7 and 12 with the features of the parent claims 1 and 2 are not disclosed by Kelkar.

The Office Action relied on Greer's teachings for modifying Kelkar's layer 202 (alleged as comparable to the first metallic layer of this invention) to include barrier layer.

In re Greer (see FIG. 3), apparently, Greer's layer 312 including conductive films 200/202

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is *covered by* the passivation layer 300, which is contrary to Kelkar's layer 202 that covers the passivation layer 206. Hence, it is inappropriate to combine Kelkar with Greer. Furthermore, as Kelkar fails to disclose all the features recited in independent claim 1, the combination of Kelkar with Greer still fails to disclose the features recited in dependent claim 7 or 12.

Accordingly, Applicant respectfully submits that dependent claims 7 and 12 patently define over the prior art references, either alone or in combination.

Reconsideration and withdrawal of these 103 rejections are respectfully requested.

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CONCLUSION

For at least the foregoing reasons, it is believed that all the pending claims of the invention patently define over the prior art and are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

Respectfully submitted,

Date :

Oct. 11, 2006

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